REMARKS

By the foregoing amendment, the specification has been amended to correct a typographical error at page 19, Claims 1, 8, 9, 57, 58, 60 and 62 have been amended, and Claim 7 has been cancelled. Favorable reconsideration of the application is respectfully requested.

Claims 1-7, 9, 10, 12-14, 57, 58, 60 and 62 were rejected under 35 U.S.C. 102(e) on the grounds of anticipation by Palmaz et al. Claim 1 has been amended to recite "the asperities having a roughness factor between approximately 40 nm and approximately 210 nm." Claims 57, 58, 60 and 62 have been similarly amended, and Claim 8 has been amended to recite "wherein the asperities have a roughness factor between approximately 100 nm and approximately 200 nm." Support for these amendments can be found in the specification at page 9, line 28; page 12, lines 28-30; and page 17, line 12. At column 6, lines 39-41, Palmaz et al. discloses that the depth of the grooves on the inner surface of the stent may fall within a range of approximately 0.5 microns to approximately 10 microns, which would provide for a much greater roughness factor than is now recited in the claims. It is therefore respectfully submitted that Claims 1-7, 9, 10, 12-14, 57, 58, 60 and 62 are novel and inventive over Palmaz et al., and that the rejection of Claims 1-7, 9, 10, 12-14, 57, 58, 60 and 62 on the grounds of anticipation by Palmaz et al. should be withdrawn.

Regarding Claim 9, the Examiner indicated that Palmaz et al. discloses coating the inner surface of a stent with a non-thrombogenic material, in the form of a layer of endothelial cells. Claim 9 recites "a layer of non-thrombogenic material formed only on

the inner surface of the stent prior to implantation." It is respectfully submitted that Palmaz et al. does not disclose, teach or suggest a layer of endothelial cells on an implantable medical device prior to implantation, as is claimed. Fig. 7, Column 5, lines 57-62, Column 1, lines 54-58, and Column 4, lines 32-35 of Palmaz et al. are all concerned with migration of cells from living tissue in the body over the stent after implantation, and not prior to implantation as is claimed. Furthermore, Claim 1 recites "a plurality of asperities formed on the inner surface of the stent," wherein the asperities may be protrusions and/or indentations, and Claim 9 recites "a layer of non-thrombogenic material formed only on the inner surface of the stent prior to implantation." Thus, in Claim 9, the non-thrombogenic material may cover the asperities which may be protrusions and/or indentations, but at Column 6, lines 52-57, Palmaz et al. makes it clear that the grooves, the only described asperities on the inner surface of the stent, are not intended to be provided with a coating. It is therefore respectfully submitted that Palmaz et al. teaches against actively providing a coating on the asperities of the inner surface of the stent, regardless of what type of coating may be provided.

Regarding Claim 10, the Examiner indicated that in Palmaz et al. the inner surface 301 of the stent has grooves having a depth that is less than the thickness of the wall between the inner and outer surface. Claim 10 has been amended to clarify that "the asperities" refers to the "plurality of asperities" recited in Claim 1. Claim 10 now recites "wherein the plurality of asperities are formed on at least one region where the wall is thinner than the selected thickness." The Examiner referred to Figures 9-25 of Palmaz et al., which could not be found, since Palmaz et al. only contains Figures 1-16. The

Examiner indicated that the region of the wall of the stent is thinner at each groove, and that a "roughened portion" is therefore formed where the wall is thinner than the selected thickness. In this view, the formation of each groove defines a region of the wall thinner than the selected thickness of the wall, so that a single asperity is formed at each region where the wall is thinner. It is respectfully submitted that Palmaz et al. does not, for example, teach forming a plurality of asperities on the thinned portion at the bottom of a groove by forming a groove in the groove or a projection in the groove where the thinned portion exists. It is respectfully submitted that Palmaz et al. does not disclose, teach or suggest formation of a plurality of asperities on a region where the wall is thinner than the selected thickness of the wall of the stent.

Furthermore, the Examiner pointed to Fig. 10 of Palmaz et al. as evidence that the depth of the groove (400) is less than the thickness of the wall between the inner and outer surface. However, Fig. 10 only shows a small portion of the cross-section of a structure in the stent, similar to the other Figs. 9 and 11-16, which Palmaz et al. described as illustrating embodiments "taken along line 9-9 of Fig. 8." There, Palmaz et al. indicates that these figures are for illustrating the "characteristics of various embodiments of grooves," but says nothing about the dimension of the wall thickness. Viewing these figures as a whole, it is clear that these figures are intended to show the groove without showing the sides of the solid structure. None of these figures shows a bottom wall, and therefore none of these figures shows the dimension of the thickness of the wall relative to the groove size for those embodiments, and it is respectfully submitted that Figure 10, singled out by the Examiner, is no better than the rest of the figures in this regard.

Regarding Claims 14 and 62, the Examiner indicated that Column 6, lines 52-58 of Palmaz et al. discloses coating the inner surface of the stent. The Examiner further indicated that the coating is capable of increasing friction of the inner surface of the stent. Claim 14 recites "a friction increasing coating layer formed on the inner surface of the stent," and Claim 62 recites "a friction increasing coating formed on a selected area of the inner surface of the body portion." As noted above, Column 6, lines 52-58 of Palmaz et al. discloses that "the inner surface 301 of the stent 300 which has not been provided with a groove," may be provided with "whatever surface finish or coating is desired." It is respectfully submitted that Column 6, lines 52-58 of Palmaz et al. is completely devoid of any teaching of a friction increasing coating as is claimed. The Examiner indicated that "the intended use" carries no weight in the absence of any distinguishing structure. However, it is respectfully submitted that the term "friction increasing coating" recites a structure, not an intended use.

The Examiner cited Column 6, lines 52-58 of Palmaz et al. describing "whatever surface finish or coating is desired" as disclosing specific coatings, capable of whatever was desired. However, it is respectfully submitted that this clearly amounts to hindsight reconstruction of the invention based upon a phrase in Palmaz et al. clearly devoid of any specific teaching. Furthermore, it does not follow from the Examiner's statement that the Palmaz et al. coating is capable of increasing friction that "whatever coating is desired" in Palmaz et al. will increase friction. Clearly there is no teaching, disclosure, suggestion or motivation in Palmaz et al. for such a coating to increase friction.

Regarding Claim 57, the Examiner indicated that Palmaz et al. discloses coating the inner surface of a balloon-expandable stent before deployment in the patient's vasculature. Claim 57 recites "an asperity formed on a selected portion of the inner surface of the body portion, the asperity being formed of at least one of protrusions and indentations, and the asperity having a roughness factor between approximately 40 nm and approximately 210 nm; and a coating of a bio-compatible material applied only to the inner surface of the body portion over the asperity prior to deployment in the patient's vasculature." Column 6, lines 52-57, Palmaz et al. makes it clear that the grooves, the only described asperities on the inner surface of the stent, are not intended to be provided with a coating. The Examiner took the position that in Palmaz et al., an asperity is considered to be a small bump or projection, and that the spaces between the grooves of the inner surface were projections. If the space between grooves is a projection from the inner surface, and grooves are an indentation from the inner surface, the Examiner is requested to indicate where the inner surface of the stent is. It is respectfully submitted that the space between the grooves in Palmaz et al. is in fact the inner surface as is described at Column 6, lines 52-58 of Palmaz et al., and that Palmaz et al. does not disclose projections from the inner surface.

The Examiner cited Column 6, lines 52-58 of Palmaz et al. as disclosing coating the inner surface of the stent, whereas Claim 57 recites "a coating of a bio-compatible material." Column 6, lines 52-58 of Palmaz et al. discloses that "the inner surface 301 of the stent 300 which has not been provided with a groove," may be provided with "whatever surface finish or coating is desired." It is respectfully submitted that Column

6, lines 52-58 of Palmaz et al. cited by the Examiner is devoid of any teaching of a biocompatible coating on the inner surface of the body portion over an asperity prior to deployment, as is claimed.

Regarding Claim 58, the Examiner indicated that Palmaz et al. discloses coating the inner surface of a balloon-expandable stent before deployment in the patient's vasculature, citing Column 6, lines 52-58 of Palmaz et al. The Examiner took the position that there are many different asperities in between the different grooves. Claim 58 recites "a plurality of asperities formed on a selected region of the inner surface of the body portion, the asperities being formed of at least one of protrusions and indentations, and the asperities having a roughness factor between approximately 40 nm and approximately 210 nm; and a coating of a material applied over the asperities prior to deployment in the patient's vasculature for providing reduced interaction between the asperities and fluid flow in a body lumen." As noted above, it is respectfully submitted that the space between the grooves in Palmaz et al. is in fact the inner surface as is described at Column 6, lines 52-58 of Palmaz et al., and that Palmaz et al. does not disclose projections from the inner surface.

The Examiner cited Column 6, lines 52-58 of Palmaz et al. as disclosing a coating the inner surface of the stent, whereas Claim 58 recites "a coating of a material applied *over the asperities* prior to deployment in the patient's vasculature for providing reduced interaction between the asperities and fluid flow in a body lumen." (Emphasis added) Column 6, lines 52-58 of Palmaz et al. discloses that "the inner surface 301 of the stent 300 which has not been provided with a groove," may be provided with "whatever

surface finish or coating is desired." It is respectfully submitted that Column 6, lines 52-58 of Palmaz et al. is devoid of any teaching of a coating of a material providing reduced interaction between the asperities and fluid flow in a body lumen as is claimed.

It is therefore respectfully submitted that Claims 1-7, 9, 10, 12-14, 57, 58, 60 and 62 are novel and inventive over Palmaz et al., and that the rejection of Claims 1-7, 9, 10, 12-14, 57, 58, 60 and 62 on the grounds of anticipation by Palmaz et al. should be withdrawn.

In light of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance, and an early favorable action in this regard is respectfully requested.

Respectfully submitted,

FULWIDER PATTON LEE & UTECHT, LLP

By: 

David G. Parkhurst
Reg. No. 29,422

DGP/rvw
Encl.: Return Postcard

Howard Hughes Center
6060 Center Drive, Tenth Floor
Los Angeles, CA 90045
Telephone: (310) 824-5555
Facsimile: (310) 824-9696
Customer No. 24201

45630.1